



SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau  
1190 South St. Francis Drive (87505)  
P.O. Box 5469, Santa Fe, New Mexico 87502-5469  
Phone (505) 827-2900 Fax (505) 827-2965  
www.env.nm.gov

**CERTIFIED MAIL – RETURN RECEIPT REQUEST**

December 27, 2018

Enrique "Kiki" Torres  
Division Leader  
Environmental Protection & Compliance  
Triad National Security, LLC  
PO Box 1663, K490  
Los Alamos, New Mexico 87545

Karen E. Armijo  
Permitting and Compliance  
National Nuclear Security A  
U.S. Department of Energy  
3747 West Jemez Road, A3  
Los Alamos, New Mexico 87544

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Triad National Security, LLC  
PO Box 1663, K490  
Los Alamos, NM

PS Form 3800, April 2015

**RE: Approval of Stabilization Work Plans for the 100K Tank and Clarifier #1, Los Alamos National Laboratory Radioactive Liquid Waste Treatment Facility, DP-1132**

Dear Mr. Torres and Ms. Armijo:

On December 4, 2018, the New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) received workplans from the U.S. Department of Energy and Triad National Security, LLC (DOE/Triad) pursuant to Condition #41 of Discharge Permit 1132 (DP-1132), for the stabilization of the following units that have ceased operations and are being removed from service: (1) 100,000-gallon steel influent tank (100K tank), and (2) Low-Level Clarifier #1.

The primary objective of stabilizing the 100K Tank is to decommission the tank. The work plan proposes the following measures for the stabilization of the 100K Tank:

- Liquids will be transferred from the 100K Tank to the Main Treatment Plant (microfilter, perchlorate ion exchange, and reverse osmosis) or shipped offsite for third-party treatment and disposal.
- Process solids will be removed, then either placed in approved waste containers or sent through the Secondary Treatment Plant to be processed through the vacuum filter. Solids removed from the 100K Tank will be sampled and analyzed for radioactivity (alpha radionuclides, beta radionuclides, and tritium) and RCRA toxicity characteristic metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver).
- The 100K Tank will be flushed with industrial water, which may include the removal of solids adhering to tank walls. Flush water will be transferred to the Main Treatment Plant. The act of transferring flush water in and out of the 100K Tank will flush process piping.

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- Piping that carried process materials into or from the 100K Tank will be isolated by removal, by capping, or by applying blind flanges, thereby assuring that materials can no longer enter the 100K Tank.
- The secondary containment wall will be removed and disposed of as municipal or industrial solid waste.
- Prior to the 100K Tank removal, an enclosure with approved high-efficiency particulate air (HEPA) filtration will be constructed around the tank. The 100K Tank will then be removed and disposed of as solid low-level radioactive waste.
- The secondary containment floor will be removed and disposed of as municipal or industrial solid waste.

The primary objective of stabilizing Clarifier #1 is to empty and isolate the unit so that it will pose no threat to the environment until closure. The work plan proposes the following measures for the stabilization of Clarifier #1:

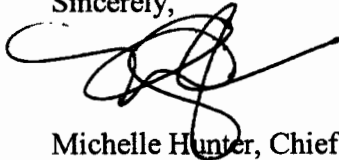
- The pilot-scale reverse osmosis unit will be dismantled and removed. Unit components will be disposed of as solid low-level radioactive waste.
- Treatment chemicals in solid and liquid form will either be used in other processes at the RLWTF or will be disposed of in compliance with state and federal regulations.
- Solid and liquid chemical feeds will be dismantled, removed, and disposed of as solid low-level radioactive waste.
- Liquids and solids will be transferred from Clarifier #1 to other treatment units for low-level radioactive liquid wastes, where the solids and liquids will be treated, in accordance with existing operating procedures.
- Industrial water will be used to flush the clarifier inlet waste lines and the interior walls of the clarifier. The act of transferring flush water out of Clarifier #1 will also flush outlet piping.
- The beam that spans the top of the clarifier, and the rake motor and drive mechanism will be removed from inside the clarifier and be discarded as low-level radioactive waste.
- Interior surfaces will then be cleaned using measures such as low-pressure spraying or a high-pressure spray wand. Cleaning materials such as water will collect in the clarifier and transferred to the Main Treatment Plant for processing through the microfilter.
- Piping that carried chemical, process materials, and industrial water into or from the clarifier will be isolated by removal, by capping, or by applying blind flanges, thereby assuring that materials can no longer enter Clarifier #1.

The information submitted in the work plans satisfies Condition #41 of your Discharge Permit. Stabilization of the 100K Tank and Clarifier #1 must be implemented as described in the work plans and in accordance with applicable portions of the Closure Plan in DP-1132. The Stabilization Work Plans for the 100K Tank and Clarifier #1 are hereby approved.

Approval of these work plans does not relieve the DOE/Triad of the responsibility to comply with any other applicable federal, state, and/or local laws and regulations. This approval does not relieve DOE/Triad of liability should operations associated with these Work Plans result in actual pollution of ground or surface waters.

If you have any questions, please contact Andrew Romero at (505) 827-0076. Thank you for your cooperation.

Sincerely,



Michelle Hunter, Chief  
Ground Water Quality Bureau

MH:ar

cc (e-version):

Steve Pullen, NMED/GWQB  
Shelly Lemon, NMED/SWQB  
John Kieling, NMED/HWB  
Michael W. Hazen, ALDESHQSS  
William H. Schwettmann, IPM  
Raelynn Romero, PM6  
Randal S. Johnson, DESHF-TA55  
Denise C. Gelston, TA-55-RLW  
Alvin M. Arahon, TA-55-RLW  
John C. Del Signore, TA-55-RLW  
Michael T. Saladen, EPC-CP  
Robert S. Beers, EPC-CP  
Steven G. Pearson, EPC-CP